



DFW

Dkt. #639-C-PCT-US

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484 Art Unit: 1623  
Filed : January 17, 2006  
For : THERAPY-ENHANCING GLUCAN

Law Offices of Albert Wai-Kit Chan, LLC  
World Plaza, Suite 604  
141-07 20<sup>th</sup> Avenue  
Whitestone, NY 11357

July 19, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir/Madam:

INFORMATION DISCLOSURE STATEMENT

Applicant hereby submits this Information Disclosure Statement in accordance with his duty of disclosure under 37 C.F.R. §1.56. Applicant would like to direct the Examiner's attention to the following references which are listed below and on Forms PTO/SB/08A and PTO/SB/08B (**Exhibit A**, 8 pages) and **Exhibits 1-6**.

1. U.S. Patent No. 3,987,166, October 19, 1976, Komatsu et al., "Treatment of Tumors with Glucan Compositions in Mice and Rats".
2. U.S. Patent No. 5,622,939, April 22, 1997, Jamas et al., "Glucan Preparation".
3. U.S. Patent No. 5,980,918, November 9, 1999, Barbara K. Klein, "β-D-Glucan Topical Composition".
4. U.S. Patent No. 5,189,028, February 23, 1993, Nikl et al., "Composition and Method to Enhance the Efficacy of a Fish Vaccine and to Stimulate the Immune System of Fish".

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 2

5. U.S. Patent No. 4,833,131, May 23, 1989, Williams et al., "Soluble Phosphorylated Glucan: Methods and Compositions for Wound Healing".
6. U.S. Patent No. 5,130,127, July 14, 1992, Dorothy Herlyn, "Human Tumor Therapy using beta (1-3) Glucanlentinan and Anti-tumor Antibodies".
7. U.S. Patent No. 4,761,402, August 2, 1988, Williams et al., "Methods and Compositions for Prophylactic and Therapeutic Treatment of Infections".
8. U.S. Patent No. 4,818,752, April 4, 1989, Williams et al., "Soluble Phosphorylated Glucan: Methods and Compositions for Treatment of Neoplastic Diseases".
9. U.S. Patent No. 5,849,720, December 15, 1998, Jamas et al., "Enhancement of Non-specific Immune Defenses by Administration of Underivatized, Aqueous Soluble Glucans".
10. U.S. Patent No. 6,573,245, June 3, 2003, Dante J. Marciani, "Modified Polysaccharide Adjuvant-protein Antigen Conjugates, the Preparation Thereof and the Use Thereof".
11. U.S. Patent No. 6,143,883, November 7, 2000, Lehmann et al., "Water-soluble Low Molecular Weight beta-glucans for Modulating Immunological Responses in Mammalian System".
12. U.S. Patent No. 6,664,370, December 16, 2003, Martin A. Cheever, "Immune Reactivity to Her-2/Neu Protein for Diagnosis and Treatment of malignancies in which the Her-2/Neu Oncogene is associated".
13. U.S. Patent No. 7,070,778 for Yvin, et al. for "Therapeutical Combination Against Cancer", July 4, 2006.

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 3

14. U.S. Patent Application Publication No. US 2004/0248772 A1 for Akikuni Yagita, December 9, 2004 for "Anticancer Compositions".
15. U.S. Patent Application Publication No. US 2004/0266726 A1 for Akikuni Yagita, December 30, 2004. "Anticancer Compositions".
16. U.S. Patent Application Publication No. US 2003/0180254 A1 for Lane et al., September 25, 2003, for "Immunologic Enhancement with Intermittent Interleukin-2 Therapy".
17. U.S. Patent Application Publication No. US 2004/0109857 A1 for Chu et al., June 10, 2004, for "Methods of Therapy for B-cell Malignancies using Antagonist Anti-CD40 Antibodies".
18. European Patent Publication No. EP 0194851 A2 for The Wistar Institute et al., September 17, 1986 for "Human tumor therapy".
19. Japanese Patent Publication No. JP 62252730 A2 for Takeda Chem. Ind. Ltd. et al., November 4, 1987 for "Antitumor Agent".
20. Japanese Patent Publication No. JP 63307825 A2 for Nippo Beet Sugar MFG Co. Ltd. et al., December 15, 1988 for "Antitumor Agent and Production Thereof".
21. International Patent Publication No. WO 2004/014320 A2 for Biopolymer engineering, Inc. et al., February 19, 2004 for "Methods of using beta glucan as a radioprotective agent".
22. International Patent Publication No. WO 2004/14320 A3 for Biopolymer engineering, Inc. et al., February 19, 2004 for "Methods of using beta glucan as a radioprotective", Published with September 2, 2004 International Search Report.

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 4

23. International Patent Publication No. WO 2004/021994 A2 for Biopolymer engineering, Inc. et al., March 18, 2004 for "Cancer therapy using whole glucan particles and antibodies".
24. International Patent Publication No. WO 2004/21994 A3 for Biopolymer engineering, Inc. et al., March 18, 2004 for "Cancer therapy using whole glucan particles and antibodies", Published with August 12, 2004 International Search Report.
25. International Patent Publication No. WO 00/15238 for NABI et al., March 23, 2000 for "Composition of  $\beta$ -glucans and specific IGIV", Published with August 31, 2000 International Search Report.
26. International Patent Publication No. WO 01/62283 A2 for BIOTECH ASA et al., August 30, 2001 for "Novel, Non-antigenic, Muscosal Adjuvant Formulation which modulates the effects of substances, including vaccine antigens, in contact with mucosal body surfaces".
27. International Patent Application Publication No. WO 98/39013 for Peregrine Pharmaceutical, Inc. et al., September 11, 1998 for "Composition and Method for Treating Cancer and Immunological Disorders Resulting in Chronic Conditions".
28. PCT International Preliminary Examination Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US02/01276, Filed January 15, 2002, Dated March 27, 2003.
29. PCT International Search Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated February 28, 2005.

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 5

30. PCT International Search Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated April 14, 2005.
31. PCT Written Opinion of the International Searching Authority for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated April 14, 2005.
32. PCT International Search Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US02/01276, Filed January 15, 2002, Dated June 5, 2002.
33. PCT Written Opinion for Sloan-Kettering Institute for Cancer Research, et al, Int'l Application No. PCT/US02/01276, Filed January 15, 2002, Dated November 25, 2002. **[Exhibit 3]**
34. PCT International Preliminary Report on Patentability for Sloan-Kettering Institute for Cancer Research, et al., Int'l Application No. PCT/US2004/023099, Filed July 16, 2004, Dated January 26, 2006. **[Exhibit 4]**
35. PCT Corrected Written Opinion of the International Searching -Authority for Sloan-Kettering Institute for Cancer Research, et al, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated August 10, 2005. **[Exhibit 5]**
36. PCT Corrected International Search Report for Sloan-Kettering Institute for Cancer Research, et al, Int'l Application No. PCT/US2004/23099, Filed July 16, 2004, Dated August 10, 2005. **[Exhibit 6]**
37. Search Report prepared by the Norwegian Patent Office, dated May 4, 2005

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 6

38. Allendorf et al., "Macrophages shuttle orally administered  $\beta$ -glucan to potentiate the CR3-dependent tumoricidal effects of monoclonal antibodies in mouse tumor models", FASEB Journal, Vol. 17, No. 7, Page C128 (2004).
39. Arturson, G. et al., "Intravascular Persistence and Renal Clearance of Dextran of Different Molecular Sizes in Normal Children", Arch. Dis. Childh., Vol. 41, Pages 168-172 (1966).
40. Arturson, G.; Wallenius, G., "The Renal Clearance of Dextran of Different Molecular Sizes in Normal Humans", Scandinaz J. Clin & Lab Investigation, Vol. 1, Pages 81-86 (1964).
41. Babineau, T. et al., "A Phase II Multicenter, Double-blind, Randomized, Placebo-Controlled Study of Three Dosages of an Immunomodulator (PGG-Glucan) in High-Risk Surgical Patients", Arch. Surg., Vol. 129, Pages 1204-1210 (1994).
42. Babineau, T. et al., "Randomized Phase I/II Trial of a Macrophage-Specific Immunomodulator (PGG-Glucan) in High-Risk Surgical Patients", Annals of Surgery, Vol. 220, No.5, Pages 601-609 (1994).
43. Basic and Clinical Pharmacology, 7th edition 1998, Bertram G. Katzung, pp.881-884 [Exhibit 1]
44. Cheung, N.; Modak, S., "Oral (1 $\rightarrow$ 3), (1 $\rightarrow$ 4)- $\beta$ -D-Glucan Synergizes with Antiganglioside GD2 Monoclonal Antibody 3F8 in the Therapy of Neuroblastoma", Clinical Cancer Research, Vol. 8, Pages 1217-1223 (2002).
45. Cheung, N.K. et al., "Orally administered  $\beta$ -glucans enhance anti-tumor effects of monoclonal antibodies", Cancer Immunol Immunother. 2002 Nov; 51(10):557-564.

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 7

46. Chihara, G. et al., "Antitumor and Metastasis-Inhibitory Activities of Lentinan as an Immunomodulator: An Overview", Cancer Detection and Prevention Supplement Vol. 1, Pages 423-443(1987).
47. Dellinger, E., et al., "Effect of PGG-glucan on the Rate of Serious Postoperative Infection or Death Observed After High Risk Gastrointestinal Operations", Arch. Surg., Vol 134, Pages 977-983(1999).
48. Hanaue, H. et al., "Basic Studies on Oral Administration of Lentinan (I)", J. Jpn. Soc. Cancer Ther., Vol. 8, Pages 1566-1571(1989).
49. Hanaue, H., Y. Tokuda, T. Machimura, A. Kamijoh, Y. Kondo, K. Ogoshi, H. Makuuchi, H. Nakasaki, T. Tajima, and T. Mitomi. 1989. "Effects of oral lentinan on T-cell Subsets in Peripheral Venous Blood". Clin. Ther. 11:614-622.
50. Hayakawa, K., N. Mitsunashi, Y. Saito, M. Takahashi, S. Katano, K. Shiojima, M. Furuta, and H. Niibe. 1993. "Effect of Krestin (PSK) as Adjuvant Treatment on the Prognosis after Radical Radiotherapy in Patients with Non-small Cell Lung Cancer". Anticancer Res. 13:1815-1820.
51. Hong et al., "Mechanism by Which Orally Administered  $\beta$ -1,3-Glucans Enhance the Tumoricidal Activity of Antitumor Monoclonal Antibodies in Murine Tumor Models", The Journal of Immunology, Vol. 173, No. 5, Pages 797-806 (2004).
52. Hotta, H., K. Hagiwara, K. Tabata, W. Ito, and M. Homma. 1993. "Augmentation of protective immune responses against Sendai virus infection by fungal polysaccharide schizophyllan". Int. J. Immunopharmacol. 15:55-60.

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 8

53. Morinaga, H., K. Tazawa, H. Tagoh, A. Muraguchi, and M. Fujimaki. 1994. "An in vivo study of hepatic and splenic interleukin-1 $\beta$  mRNA expression following oral PSK or LEM administration". Gann 85:1298-1303.
54. Nanba, H. 1995. "Activity of Maitake D-fraction to Inhibit Carcinogenesis and Metastasis". Ann. N. Y. Acad. Sci. 768:243-245.
55. Nanba, H. and H. Kuroda. 1987. "Antitumor Mechanisms of Orally Administered Shiitake Fruit Bodies". Chem. Pharm. Bull. (Tokyo) 35:2459-2464.
56. Nanba, H. and H. Kuroda. 1988. "Potentiation of Host-Mediated Antitumor Activity by Orally Administered Mushroom (*Agaricus bispora*) Fruit Bodies". Chem. Pharm. Bull. (Tokyo) 36:1437-1444.
57. Hishida, I., H. Nanba, and H. Kuroda. 1988. "Antitumor Activity Exhibited by Orally Administered Extract from Fruit Body of *Grifola frondosa* (Maitake)". Chem. Pharm. Bull (Tokyo) 36:1819-1827.
58. Iino, Y., T. Yokoe, M. Maemura, J. Horiguchi, H. Takei, S. Ohwada, and Y. Morishita. 1995. "Immunochemotherapies versus Chemotherapy as Adjuvant Treatment after Curative Resection of Operable Breast Cancer". Anticancer Res. 15:2907-2912.
59. Kidd, P., "The Use of Mushroom Glucans and Proteoglycans in Cancer Treatment", Alternative Medicine Review, Vol. 5, No. 1, Pages 4-27(2000).
60. Mayer, L.; Shao, L., "Therapeutic Potential of Oral Tolerance", Nature Reviews Immunology, Vol. 4, Pages 407-419(2004).
61. Mehvar, R., "Recent Trends in the Use of Polysaccharides for Improved Delivery of Therapeutic Agents: Pharmacokinetic and Pharmacodynamic Perspectives",



Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 9

Current Pharmaceutical Biotechnology, Vol. 4, Pages 283-302(2003).

62. Nanba, H., K. Mori, T. Toyomasu, and H. Kuroda. 1987. "Antitumor action of shiitake (*Lentinus edodes*) fruit bodies orally administered to mice". Chem. Pharm. Bull. (Tokyo) 35:2453-2458.
63. Ohmori, T., K. Tamura, A. Wakaiki, G. Kawanishi, S. Tsuru, T. Yadomae and K. Nomoto. 1988. "Dissociation of a Glucan Fraction (CO-1) from Protein-bound Polysaccharide of *Cordyceps ophioglossides* and Analysis of its Antitumor Effect". Chem. Pharm. Bull. (Tokyo) 36:4512-4518.
64. Ostroff et al., "Immune-Enhancing Effects of Oral Yeast  $\beta$  1,3/1,6 Glucans", American Chemical Society, Vol. 225, No.1-2, pp. AGFD 8 (2003).
65. Papila et al., "The Effect of Oral  $\beta$ -glucan in Addition to Systemic Chemotherapy on the Leukocyte Values and Oral Mucositis in the Patients with Head-neck Tumors", International Review of Allergology & Clinical Immunology, Vol 10, No.2, Pages 59-61(2004).
66. Ross, et al., "Therapeutic intervention with complement and  $\beta$ -glucan in cancer", Immunopharmacology 42(1999), 61-74.
67. Sakurai, T., K. Hashimoto, I. Suzuki, N. Ohno, S. Oikawa, A. Masuda, and T. Yadomae. 1992. "Enhancement of Murine Alveolar Macrophage Functions by Orally Administered  $\beta$ -glucan". Int. J. Immunopharmacol. 14:821-830.
68. Shimazu, H. et al., "Intravenous chronic toxicity of lentinan in rats: 6-month treatment and 3-month recovery (author transl.)", National Library of Medicine (PubMed), J Toxicol Sci., Pages 33-57 (1980).

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 10

69. Sortwell, R. et al., "Chronic Intravenous Administration of Lentinan to the Rhesus Monkey", Toxicology Letters, Vol. 9, Pages 81-85 (1981).
70. Suzuki, et al., "Effect of orally administered  $\beta$ -glucan on macrophage function in mice". Int. J. Immunopharmacology 12:6, 675-684, 1990.
71. Suzuki, M. et al., "Antitumor and Immunological Activity of Lentinan in Comparison with LPS", International Society for Immunopharmacology, Pages 463-468(1994).
72. Suzuki, I., K. Hashimoto, N. Ohno, H. Tanaka, and T. Yadomae. 1989. "Immunomodulation by Orally Administered  $\beta$ -glucan in Mice". Int. J. Immunopharmacol. 11:761-769.
73. Suzuki, I., T. Sakurai, K. Hashimoto, S. Oikawa, A. Masuda, M. Ohsawa, and T. Yadomae. 1991. "Inhibition of Experimental Pulmonary Metastasis of Lewis Lung Carcinoma by Orally Administered  $\beta$ -glucan in Mice". Chem. Pharm. Bull. (Tokyo) 39:1606-1608.
74. Tsukagoshi, S., Y. Hashimoto, G. Fujii, H. Kobayashi, K. Nomoto, and K. Orita. 1984. "Krestin (PSK)", Cancer Treat. Rev. 11:131-155.
75. Vetvicka, et al. "Pilot Study: Orally-administered Yeast Beta 1,3-glucan Prophylactically protects against anthrax infection and cancer in mice". Journ. Ameri. Nutraceutical Assoc., Vol. 5:2, April 22, 2002.
76. Vetvicka, V., B.P. Thornton and G.D. Ross, "Soluble  $\beta$ -Glucan Polysaccharide Binding to the Lectin Site of Neutrophil or Natural Killer Cell Complement Receptor Type3 (CD11b/CD18) Generates a Primed State of the Receptor Capable of Mediating Cytotoxicity of iC3b-Opsonized Target Cells". J. Clin. Invest., 98:50-61, 1996.

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 11

77. Xia, Y., V. Vetvicka, J. Yan, M. Hanikyrova, T. Mayadas and G.D. Ross, "The  $\beta$ -Glucan-Binding Lectin Site of Mouse CR3 (CD11b/CD18) and Its Function in Generating a Primed State of the Receptor That Mediates Cytotoxic Activation in Response to iC3b-Opsonized Target Cells". J. Immunology, 162:2281-2290, 1999.
78. Yan, J. et al., " $\beta$ -Glucan, a "Specific" Biologic Response Modifier That Uses Antibodies to Target Tumors for Cytotoxic Recognition by Leukocyte Complement receptor Type 3 (CD11b/CD18)". The Journal of Immunology, 163:3045-3052, 1999. [Exhibit 2]

Copies of the above U.S. patents and published applications are on file at the USPTO; therefore a copy will not be provided. Reference numbers 62-65 are being added by the Applicant. The remaining references were either cited by the Examiner in corresponding case U.S. serial No. 10/621, 027, Filed January 17, 2006 or have been submitted in the corresponding case

Therefore copies of these references will not be provided. However applicant's attorney's office may be contacted in the event that the examiner would like a copy of any of the above references.

If a telephone interview would be of assistance in advancing prosecution of the subject application, Applicant's undersigned attorney invites the Examiner to telephone him at the number provided below.

Applicant : Nai-Kong V. CHEUNG  
U.S. Serial No. : 10/565,484  
Filed : January 17, 2006  
Page : 12

No fee is deemed necessary in connection with the filing of this Information Disclosure Statement. However, if any fee is required, authorization is given to charge the amount of any such fee to Deposit Account No. 50-1891.

I hereby certify that this paper is being deposited this date with the U.S. Postal Service with sufficient postage for first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Albert Wai-Kit Chan 7/19/06  
Albert Wai-Kit Chan Date  
Reg. No. 36,479

Respectfully submitted,

Albert Wai-Kit Chan

Albert Wai-Kit Chan  
Registration No. 36,479  
Attorney for Applicant(s)  
Law Offices of  
Albert Wai-Kit Chan, LLC  
World Plaza, Suite 604  
141-07 20<sup>th</sup> Avenue  
Whitestone, New York 11357  
Tel: (718) 799-1000  
Fax: (718) 357-8615  
Email: chank@kitchanlaw.com



PTO/SB/08A (04-03)

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 8

**Complete if Known**

Application Number	10/565,484
Filing Date	01/17/2006
First Named Inventor	Nai-Kong V. Cheung
Art Unit	1623
Examiner Name	Not Yet Known
Attorney Docket Number	639-C-PCT-US

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1	US- 3,987,166	10-19-1976	Komatsu et al.	
	2	US- 5,622,939	04-22-1997	Jamas et al.	
	3	US- 5,980,918	11-09-1999	Barbara K. Klein	
	4	US- 5,189,028	02-23-1993	Niki et al.	
	5	US- 4,833,131	05-23-1989	Williams et al.	
	6	US- 5,130,127	07-14-1992	Dorothy Herlyn	
	7	US- 4,761,402	08-02-1988	Williams et al.	
	8	US- 4,818,752	04-04-1989	Williams et al.	
	9	US- 5,849,720	12-15-1998	Jamas et al.	
	10	US- 6,573,245	06-03-2003	Dante J. Marciani	
	11	US- 6,143,883	11-07-2000	Lehmann et al.	
	12	US- 6,664,370	12-06-2003	Martin A. Cheever	
	13	US- 7,070,778	07-04-2006	Yvin, et al.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> *Number <sup>4</sup> *Kind Code <sup>5</sup> (if known)				

Examiner Signature	Date Considered
-----------------------	--------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/565,484
		Filing Date	01/17/2006
		First Named Inventor	Nai-Kong V. Cheung
		Art Unit	1623
		Examiner Name	Not Yet Known
Sheet 2	of 8	Attorney Docket Number 639-C-PCT-US	

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	14	U.S. Patent Application Publication No. US 2004/0248772 A1 for Akikuni Yagita, December 9, 2004 for "Anticancer Compositions"	
	15	U.S. Patent Application Publication No. US 2004/0266726 A1 for Akikuni Yagita, December 30, 2004. "Anticancer Compositions"	
	16	U.S. Patent Application Publication No. US 2003/0180254 A1 for Lane et al., September 25, 2003, for "Immunologic Enhancement with Intermittent Interleukin-2 Therapy"	
	17	U.S. Patent Application Publication No. US 2004/0109857 A1 for Chu et al., June 10, 2004, for "Methods of Therapy for B-cell Malignancies using Antagonist Anti-CD40 Antibodies"	
	18	European Patent Publication No. EP 0194851 A2 for The Wistar Institute et al., September 17, 1986 for "Human tumor therapy".	
	19	Japanese Patent Publication No. JP 62252730 A2 for Takeda Chem. Ind. Ltd. et al., November 4, 1987 for "Antitumor Agent"	
	20	Japanese Patent Publication No. JP 63307825 A2 for Nippo Beet Sugar MFG Co. Ltd. et al., December 15, 1988 for "Antitumor Agent and Production Thereof".	
	21	International Patent Publication No. WO 2004/014320 A2 for Biopolymer engineering, Inc. et al., February 19, 2004 for "Methods of using beta glucan as a radioprotective agent".	
	22	International Patent Publication No. WO 2004/14320 A3 for Biopolymer engineering, Inc. et al., February 19, 2004 for "Methods of using beta glucan as a radioprotective", Published with September 2, 2004 International Search Report.	
	23	International Patent Publication No. WO 2004/021994 A2 for Biopolymer engineering, Inc. et al., March 18, 2004 for "Cancer therapy using whole glucan particles and antibodies".	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/565,484
		Filing Date	01/17/2006
		First Named Inventor	Nai-Kong V. Cheung
		Art Unit	1623
		Examiner Name	Not Yet Known
Sheet 3	of 8	Attorney Docket Number 639-C-PCT-US	

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	24	International Patent Publication No. WO 2004/21994 A3 for Biopolymer engineering, Inc. et al., March 18, 2004 for "Cancer therapy using whole glucan particles and antibodies", Published with August 12, 2004 International Search Report.	
	25	International Patent Publication No. WO 00/15238 for NABI et al., March 23, 2000 for "Composition of $\beta$ -glucans and specific IGIV", Published with August 31, 2000 International Search Report.	
	26	International Patent Publication No. WO 01/62283 A2 for BIOTECH ASA et al., August 30, 2001 for "Novel, Non-antigenic, Mucosal Adjuvant Formulation which modulates the effects of substances, including vaccine antigens, in contact with mucosal body surfaces".	
	27	International Patent Application Publication No. WO 98/39013 for Peregrine Pharmaceutical, Inc. et al., September 11, 1998 for "Composition and Method for Treating Cancer and Immunological Disorders Resulting in Chronic Conditions".	
	28	PCT International Preliminary Examination Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US02/01276, Filed January 15, 2002, Dated March 27, 2003.	
	29	PCT International Search Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated February 28, 2005.	
	30	PCT International Search Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated April 14, 2005.	
	31	PCT Written Opinion of the International Searching Authority for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated April 14, 2005.	
	32	PCT International Search Report for Sloan-Kettering Institute for Cancer Research, Int'l Application No. PCT/US02/01276, Filed January 15, 2002, Dated June 5, 2002.	
	33	PCT Written Opinion for Sloan-Kettering Institute for Cancer Research, et al, Int'l Application No. PCT/US02/01276, Filed January 15, 2002, Dated November 25, 2002.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/565,484
		Filing Date	01/17/2006
		First Named Inventor	Nai-Kong V. Cheung
		Art Unit	1623
		Examiner Name	Not Yet Known
Sheet 4	of 8	Attorney Docket Number	639-C-PCT-US

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	34	PCT International Preliminary Report on Patentability for Sloan-Kettering Institute for Cancer Research, et al., Int'l Application No. PCT/US2004/023099, Filed July 16, 2004, Dated January 26, 2006.	
	35	PCT Corrected Written Opinion of the International Searching Authority for Sloan-Kettering Institute for Cancer Research, et al, Int'l Application No. PCT/US04/23099, Filed July 16, 2004, Dated August 10, 2005.	
	36	PCT Corrected International Search Report for Sloan-Kettering Institute for Cancer Research, et al, Int'l Application No. PCT/US2004/23099, Filed July 16, 2004, Dated August 10, 2005	
	37	Search Report prepared by the Norwegian Patent Office, dated May 4, 2005	
	38	Allendorf et al., "Macrophages shuttle orally administered $\beta$ -glucan to potentiate the CR3-dependent tumoricidal effects of monoclonal antibodies in mouse tumor models", FASEB Journal, Vol. 17, No. 7, Page C128 (2004).	
	39	Arturson, G. et al., "Intravascular Persistence and Renal Clearance of Dextran of Different Molecular Sizes in Normal Children", Arch. Dis. Childh., Vol. 41, Pages 168-172 (1966).	
	40	Arturson, G.; Wallenius, G., "The Renal Clearance of Dextran of Different Molecular Sizes in Normal Humans", Scandinz J. Clin & Lab Investigation, Vol. 1, Pages 81-86 (1964).	
	41	Babineau, T. et al., "A Phase II Multicenter, Double-blind, Randomized, Placebo-Controlled Study of Three Dosages of an Immunomodulator (PGG-Glucan) in High-Risk Surgical Patients", Arch. Surg., Vol. 129, Pages 1204-1210(1994).	
	42	Babineau, T. et al., "Randomized Phase I/II Trial of a Macrophage-Specific Immunomodulator(PGG-Glucan) in High-Risk Surgical Patients", Annals of Surgery, Vol. 220, No.5, Pages 601-609(1994).	
	43	Basic and Clinical Pharmacology, 7th edition 1998, Bertram G. Katzung, pp.881-884	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>			
		Application Number	10/565,484		
		Filing Date	01/17/2006		
		First Named Inventor	Nai-Kong V. Cheung		
		Art Unit	1623		
		Examiner Name	Not Yet Known		
Sheet	5	of	8	Attorney Docket Number	639-C-PCT-US

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	44	Cheung, N.; Modak, S., "Oral (1*3),(1*4)-β-D-Glucan Synergizes with Antiganglioside GD2 Monoclonal Antibody 3F8 in the Therapy of Neuroblastoma", Clinical Cancer Research, Vol. 8, Pages 1217-1223 (2002).	
	45	Cheung, N.K. et al., "Orally administered β-glucans enhance anti-tumor effects of monoclonal antibodies", Cancer Immunol Immunother. 2002 Nov; 51(10):557-564.	
	46	Chihara, G. et al., "Antitumor and Metastasis-Inhibitory Activities of Lentinan as an Immunomodulator: An Overview", Cancer Detection and Prevention Supplement Vol. 1, Pages 423-443(1987).	
	47	Dellinger, E., et al., "Effect of PGG-glucan on the Rate of Serious Postoperative Infection or Death Observed After High Risk Gastrointestinal Operations", Arch. Surg., Vol 134, Pages 977-983(1999).	
	48	Hanaue, H. et al., "Basic Studies on Oral Administration of Lentinan (I)", J. Jpn. Soc. Cancer Ther., Vol. 8, Pages 1566-1571(1989).	
	49	Hanaue, H., Y. Tokuda, T. Machimura, A. Kamijoh, Y. Kondo, K. Ogoshi, H. Makuuchi, H. Nakasaki, T. Tajima, and T. Mitomi. 1989. "Effects of oral lentinan on T-cell Subsets in Peripheral Venous Blood". Clin. Ther. 11:614-622.	
	50	Hayakawa, K., N. Mitsuhashi, Y. Saito, M. Takahashi, S. Katano, K. Shiojima, M. Furuta, and H. Niibe. 1993. "Effect of Krestin (PSK) as Adjuvant Treatment on the Prognosis after Radical Radiotherapy in Patients with Non-small Cell Lung Cancer". Anticancer Res. 13:1815-1820.	
	51	Hong et al., "Mechanism by Which Orally Administered β-1,3-Glucans Enhance the Tumoricidal Activity of Antitumor Monoclonal Antibodies in Murine Tumor Models", The Journal of Immunology, Vol. 173, No. 5, Pages 797-806 (2004).	
	52	Hotta, H., K. Hagiwara, K. Tabata, W. Ito, and M. Homma. 1993. "Augmentation of protective immune responses against Sendai virus infection by fungal polysaccharide schizophyllan". Int. J. Immunopharmacol. 15:55-60	
	53	Morinaga, H., K. Tazawa, H. Tagoh, A. Muraguchi, and M. Fujimaki. 1994. "An in vivo study of hepatic and splenic interleukin-1β mRNA expression following oral PSK or LEM administration". Gann 85:1298-1303	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	10/565,484
		Filing Date	01/17/2006
		First Named Inventor	Nai-Kong V. Cheung
		Art Unit	1623
		Examiner Name	Not Yet Known
Sheet 6	of 8	Attorney Docket Number 639-C-PCT-US	

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	54	Nanba, H. 1995. "Activity of Maitake D-fraction to Inhibit Carcinogenesis and Metastasis". Ann. N. Y. Acad. Sci. 768:243-245	
	55	Nanba, H. and H. Kuroda. 1987. "Antitumor Mechanisms of Orally Administered Shiitake Fruit Bodies". Chem. Pharm. Bull. (Tokyo) 35:2459-2464	
	56	Nanba, H. and H. Kuroda. 1988. "Potentiation of Host-Mediated Antitumor Activity by Orally Administered Mushroom (Agaricus bispora) Fruit Bodies". Chem. Pharm. Bull. (Tokyo) 36:1437-1444.	
	57	Hishida, I., H. Nanba, and H. Kuroda. 1988. "Antitumor Activity Exhibited by Orally Administered Extract from Fruit Body of Grifola frondosa (Maitake)". Chem. Pharm. Bull. (Tokyo) 36:1819-1827	
	58	Iino, Y., T. Yokoe, M. Maemura, J. Horiguchi, H. Takei, S. Ohwada, and Y. Morishita. 1995. "Immunochemotherapies versus Chemotherapy as Adjuvant Treatment after Curative Resection of Operable Breast Cancer". Anticancer Res. 15:2907-2912.	
	59	Kidd, P., "The Use of Mushroom Glucans and Proteoglycans in Cancer Treatment", Alternative Medicine Review, Vol. 5, No. 1, Pages 4-27(2000).	
	60	Mayer, L.; Shao, L., "Therapeutic Potential of Oral Tolerance", Nature Reviews Immunology, Vol. 4, Pages 407-419(2004).	
	61	Mehvar, R., "Recent Trends in the Use of Polysaccharides for Improved Delivery of Therapeutic Agents: Pharmacokinetic and Pharmacodynamic Perspectives", Current Pharmaceutical Biotechnology, Vol. 4, Pages 283-302(2003).	
	62	Nanba, H., K. Mori, T. Toyomasu, and H. Kuroda. 1987. "Antitumor action of shiitake (Lentinus edodes) fruit bodies orally administered to mice". Chem. Pharm. Bull. (Tokyo) 35:2453-2458	
	63	Ohmori, T., K. Tamura, A. Wakaiki, G. Kawanishi, S. Tsuru, T. Yadomae and K. Nomoto. 1988. "Dissociation of a Glucan Fraction (CO-1) from Protein-bound Polysaccharide of Cordyceps ophioglossides and Analysis of its Antitumor Effect". Chem. Pharm. Bull. (Tokyo) 36:4512-4518	

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/565,484
		Filing Date	01/17/2006
		First Named Inventor	Nai-Kong V. Cheung
		Art Unit	1623
		Examiner Name	Not Yet Known
Sheet 7	of 8	Attorney Docket Number 639-C-PCT-US	

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	64	Ostroff et al., "Immune-Enhancing Effects of Oral Yeast $\beta$ 1,3/1,6 Glucans", American Chemical Society, Vol. 225, No.1-2, pp. AGFD 8 (2003).	
	65	Papila et al., "The Effect of Oral $\beta$ -glucan in Addition to Systemic Chemotherapy on the Leukocyte Values and Oral Mucositis in the Patients with Head-neck Tumors", International Review of Allergology & Clinical Immunology, Vol 10, No.2, Pages 59-61(2004).	
	66	Ross, et al., "Therapeutic intervention with complement and $\beta$ -glucan in cancer", Immunopharmacology 42(1999), 61-74.	
	67	Sakurai, T., K. Hashimoto, I. Suzuki, N. Ohno, S. Oikawa, A. Masuda, and T. Yadomae. 1992. "Enhancement of Murine Alveolar Macrophage Functions by Orally Administered $\beta$ -glucan". Int. J. Immunopharmacol. 14:821-830.	
	68	Shimazu, H. et al., "Intravenous chronic toxicity of lentinan in rats: 6-month treatment and 3-month recovery (author transl.)", National Library of Medicine (PubMed), J Toxicol Sci., Pages 33-57 (1980).	
	69	Sortwell, R. et al., "Chronic Intravenous Administration of Lentinan to the Rhesus Monkey", Toxicology Letters, Vol. 9, Pages 81-85 (1981).	
	70	Suzuki, et al., "Effect of orally administered $\beta$ -glucan on macrophage function in mice". Int. J. Immunopharmacology 12:6, 675-684, 1990.	
	71	Suzuki, M. et al., "Antitumor and Immunological Activity of Lentinan in Comparison with LPS", International Society for Immunopharmacology, Pages 463-468(1994).	
	72	Suzuki, I., K. Hashimoto, N. Ohno, H. Tanaka, and T. Yadomae. 1989. "Immunomodulation by Orally Administered $\beta$ -glucan in Mice". Int. J. Immunopharmacol. 11:761-769.	
	73	Suzuki, I., T. Sakurai, K. Hashimoto, S. Oikawa, A. Masuda, M. Ohsawa, and T. Yadomae. 1991. "Inhibition of Experimental Pulmonary Metastasis of Lewis Lung Carcinoma by Orally Administered $\beta$ -glucan in Mice". Chem. Pharm. Bull. (Tokyo) 39:1606-1608	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	10/565,484
		Filing Date	01/17/2006
		First Named Inventor	Nai-Kong V. Cheung
		Art Unit	1623
		Examiner Name	Not Yet Known
Sheet 8	of 8	Attorney Docket Number	639-C-PCT-US

OTHER PRIOR ART—NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	74	Tsukagoshi, S., Y. Hashimoto, G. Fujii, H. Kobayashi, K. Nomoto, and K. Orita. 1984. "Krestin (PSK)", Cancer Treat. Rev. 11:131-155	
	75	Vetvicka, et al. "Pilot Study: Orally-administered Yeast Beta 1,3-glucan Prophylactically protects against anthrax infection and cancer in mice". Journ. Ameri. Nutraceutical Assoc., Vol. 5:2, April 22, 2002.	
	76	Vetvicka, V., B.P. Thornton and G.D. Ross, "Soluble $\beta$ -Glucan Polysaccharide Binding to the Lectin Site of Neutrophil or Natural Killer Cell Complement Receptor Type3 (CD11b/CD18) Generates a Primed State of the Receptor Capable of Mediating Cytotoxicity of iC3b-Opsonized Target Cells". J. Clin. Invest., 98:50-61, 1996.	
	77	Xia, Y., V. Vetvicka, J. Yan, M. Hanikyrova, T. Mayadas and G.D. Ross, "The $\beta$ -Glucan-Binding Lectin Site of Mouse CR3 (CD11b/CD18) and Its Function in Generating a Primed State of the Receptor That Mediates Cytotoxic Activation in Response to iC3b-Opsonized Target Cells". J. Immunology, 162:2281-2290, 1999.	
	78	Yan, J. et al., " $\beta$ -Glucan, a "Specific" Biologic Response Modifier That Uses Antibodies to Target Tumors for Cytotoxic Recognition by Leukocyte Complement receptor Type 3 (CD11b/CD18)". The Journal of Immunology, 163:3045-3052, 1999.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.